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Appl. No. 10/714,021
Reply to Office Action of September 12, 2008
Amendment dated: March 12, 2009

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A magnetic recording medium comprising:

a non-magnetic supporter;

a first magnetic layer formed above said non-magnetic supporter and formed from a magnetic paint having a first ferromagnetic material; and

a second magnetic layer formed above said first magnetic layer and formed from a magnetic paint having a second ferromagnetic material, wherein the first magnetic layer and the second magnetic layer include polyester polyol having an alicyclic framework and a polyurethane resin composed of diisocyanate and wherein a concentration of a urethane group in the polyurethane resin ranges from 0.5 mmol/g to 3.0 mmol/g, the first magnetic layer having a thickness approximately five times greater than a thickness of the second magnetic layer and wherein a combined thickness of said first and second magnetic layers is approximately 3.0 μm and further wherein at least one of the first and second magnetic layers includes alkali metal sulfonate incorporated into the resin at concentration of .001 mmol per gram to 1.0 mmol per gram, wherein a urethane group concentration for the first magnetic layer and the second magnetic layer is substantially the same.

2. (Previously Presented) The magnetic recording medium according to claim 1, wherein the magnetic paints are formed from a powder and wherein a content of the polyurethane resin has a mixing ratio relative to the weight of magnetic powder, said mixing ratio being the same in the first magnetic layer and the second magnetic layer.

Appl. No. 10/714,021
Reply to Office Action of September 12, 2008
Amendment dated: March 12, 2009

3. (Previously Presented) The magnetic recording medium according to claim 1, wherein tertiary amine is included in the polyurethane resin.
4. (Previously Presented) The magnetic recording medium according to claim 2, wherein tertiary amine is included in the polyurethane resin.
5. (Withdrawn) A magnetic recording medium having magnetic recording layers of multiple layers in which a first magnetic layer and a second magnetic layer are applied in order on a non-magnetic supporter, wherein the first magnetic layer includes carbon black having an average particle size of 80 nm or smaller and an abrasive having Mohs scale of 6 or higher, and the second magnetic layer includes MT carbon black having an average particle size of 200 nm to 400 nm and an abrasive having Mohs scale of 6 or higher.
6. (Withdrawn) The magnetic recording medium according to claim 5, wherein assuming that the thickness of the first magnetic layer is t_1 , the thickness of the second magnetic layer is t_2 and the particle size of the abrasive is r , when t_1 is not larger than t_2 , the following relation is satisfied. $0.5 \times t_2 \leq r \leq t_2$.
7. (Withdrawn) The magnetic recording medium according to claim 6, wherein the thickness t_2 of the second magnetic layer is not smaller than 0.2 μm and not larger than 1.0 μm .
8. (Previously Presented) The magnetic recording medium of claim 1, wherein the magnetic paints used to form said first magnetic layer and said second magnetic

Appl. No. 10/714,021
Reply to Office Action of September 12, 2008
Amendment dated: March 12, 2009

layer are formed from magnetic powders and wherein the quantity of polyurethane resin ranges from five parts by weight to twenty parts by weight relative to the weight of the magnetic powder.

9. (Previously Presented) The magnetic recording medium of claim 1, further wherein the alkali metal sulfonate is incorporated into the resin at concentration of .01 mmol per gram to .4 mmol per gram.

10. (Previously Presented) The magnetic recording medium of claim 8, further wherein the alkali metal sulfonate is incorporated into the resin at concentration of .01 mmol per gram to .4 mmol per gram.

11. (Previously Presented) The magnetic recording medium of claim 1, further comprising a quantity of a polar group of a tertiary amine present in a range of .01 mmol/g to .5 mmol/g.

12. (Previously Presented) The magnetic recording medium of claim 8, further comprising a quantity of a polar group of a tertiary amine present in a range of .01 mmol/g to .5 mmol/g.

13. (Previously Presented) The magnetic recording medium of claim 9, further comprising a quantity of a polar group of a tertiary amine present in a range of .01 mmol/g to .5 mmol/g.

Appl. No. 10/714,021
Reply to Office Action of September 12, 2008
Amendment dated: March 12, 2009

14. (Previously Presented) The magnetic recording medium of claim 10, further comprising a quantity of a polar group of a tertiary amine present in a range of .01 mmol/g to .5 mmol/g.

15. (Previously Presented) The magnetic recording medium of claim 1, further wherein the alkali metal sulfonate is incorporated into the first and second magnetic layers.